

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Surface Protection Industries

California Manufacturing Technology Consulting

Surface Protection Industries Receive Huge Bottom-Line Savings

Client Profile:

Surface Protection Industries (SPI), a paint manufacturer in business for 25 years, manufactures high quality commercial and architectural paint products based on its innovative and proprietary Zolatone coating process. Its products serve customers in the building industry for both domestic and commercial use. Headquartered in Los Angeles, the company is equipped with approximately 65,000 square feet of plant floor space and 48,000 square feet of warehouse space. SPI generated an estimated \$14 million in revenue in 2003 with 150 employees.

Situation:

SPI management desired to meet increasing customer expectations and demand by making quicker deliveries, lowering costs, and improving quality of its specialized products. To this end, SPI needed to reduce the amount of finished goods and raw materials inventory, and consequently improve manufacturing yields. The company contacted California Manufacturing Technology Consulting (CMTC), a NIST MEP network affiliate, for assistance.

Solution:

In 2003, a production enhancement tool known as a Value Stream Map (VSM) was used by CMTC to identify areas of improvement in SPI manufacturing activities. The objective of the SPI project was to develop a Current State VSM that identified opportunities for improvement which had significant savings potential in their operation. A Future State VSM would follow that would eliminate constraints on the flow of its manufactured products, leading to an improvement in the first pass yield rates for SPI's product line. The VSM highlighted a number of manufacturing improvement opportunities for SPI, including reducing waste in locating, moving and re-handling of excessive material, standardizing manufacturing procedures in repetitive processes like spray out, inspect/adjust, and re-mix and improving process cycle times to meet heightened demand times. The Future State VSM reorganized the entire manufacturing process from 18 steps to 3 manufacturing process steps. Standard processes, workplace organization and key manufacturing performance metrics were integrated into the 3 manufacturing process steps. In addition, SPI personnel were trained in Lean Manufacturing principles and how to maintain a culture of process improvement.

Results:

- * Improved quality, delivery time, and cost of product.
- * Reduced amount of finished goods and raw materials inventory.
- * Reduced lead time by 42 percent (from 6.8 days to 4 days).
- * Raised yield rates from 39 percent to 75 percent.
- * Projected annual savings: reduced inventory (\$272,604); receivables (\$27,730); and operational improvements (\$200,000).

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- * Reduced manufacturing process from 8 steps to 3 steps.
- * Trained personnel in Lean Manufacturing principles and process improvement.

Testimonial:

"CMTC's lean expertise and commitment to results ended up giving us a huge bottom-line savings!"

Bob Osborne, General Manager